

Table of Contents

Executive Summary	3
Satisfaction	5
Portfolio Achievement	9
Income Qualified Class Overview	11
Residential Class Overview	17
ENERGY STAR® Program	21
Appliance Recycling Program	24
Home Performance Program	26
Education Program	29
Pilot Programs	31
Commercial & Industrial Class Overview	35
Prescriptive & Custom Program	39
Education Program	42
Pilot Program	44
Marketing	48
QA/QC	50
Appendix	51

Executive Summary

Efficiency United is the brand name for Energy Optimization (EO) programs offered on behalf of participating providers of retail electric and natural gas services pursuant to PA 295 of 2008, Section 91(1). This section allows interested providers to comply with PA 295 EO requirements by making annual payments to qualified, independent non-profit organizations selected by the Michigan Public Service Commission (MPSC). These payments are derived from surcharges collected from customers via their utility bills.

After a competitive bid process in July 2009 and November 2013, the MPSC selected Michigan Community Action (MCA, formerly Michigan Community Action Agency Association), with CLEAResult as its primary implementation contractor, to administer Efficiency United EO programs. MCA is a non-profit state association of 29 Michigan Community Action Agencies which provide programs and services, such as weatherization, to help income-qualified individuals and families throughout the state achieve greater economic self-sufficiency and stability. MCA has extensive experience with administering grantfunded weatherization and energy efficiency programs. The contract between the State of Michigan and MCA includes energy savings target for each participating provider.

PA 295 expired December 31, 2016 and was replaced by PA 342 on December 16, 2016. This legislative change took place on April 20, 2017 and ushered in several updates to Michigan's energy efficiency programs, including the change of program terminology from Energy Optimization to Energy Waste Reduction (EWR). Due to the nature of Efficiency United, not all updates associated with this legislative change were required for the 2017

EWR program. Additional requirements will be in effect for the 2018 EWR program. Also in December, MCA extended its contract with CLEAResult through December 31, 2021.

Achievements of the 2017 Efficiency United EWR plan:

For the sixth consecutive year, the Efficiency United program achieved savings targets for each of its collaborative members.

- Served nearly 53,000 customers
- Distributed nearly \$5,150,000 through incentive funding of core program projects
- Exceeded first-year net therm energy savings target by 82 percent, realizing 182 percent of goal
- Exceeded first-year net kWh energy savings targets by 127 percent, realizing 227 percent of goal
- Enhanced the lives of 784 customers through the Income Qualified Energy Assistance program
- Fully utilized the Income Qualified Energy
 Assistance incentive budgets for all utilities,
 including the use of prior year unspent funds

Program Communication and Collaboration

Communication efficacy and accuracy continued to serve as a vital ingredient to the success of the 2017 Efficiency United EWR plan. Regular communication and collaboration occurred between these partners:

- Michigan Public Service Commission (MPSC)
- Michigan Community Action (MCA)
- CLEAResult

- DNV GL
- National Energy Foundation (NEF)
- Morgan Marketing Partners

Efficiency United program team and MCA provided regular communication to members of the collaborative, which included:

- Strategic planning
- Monthly reporting
- Marketing collateral
- Initiatives
- Invoicing and approvals
- Incentives

Collaboration with DNV GL and MPSC

Collaboration between Efficiency United, MCA, DNV GL and MPSC continued in 2017, with the following taking place:

- Participated in the MPSC EWR Collaborative Design, Implementation & Evaluation Workgroups
- Solicited input and provided feedback on the Michigan Energy Measures Database (MEMD)
- Provided updates on contractor and retailer efforts

 Worked closely with the Michigan Energy Efficiency Contractors Association (MEECA) to solicit contractor feedback

MCA and the Efficiency United program team proactively worked with program evaluator DNV GL, which made it possible to make real-time adjustments where necessary throughout the year. Regular efforts included:

- Evaluation activity planning and coordination
- Engineered savings calculations review for select Commercial & Industrial Custom projects
- Data submission

Efficiency United continued enhancing program delivery through feedback provided by DNV GL, and continually sought ways to enhance programs through:

- Innovative EWR program offerings
- Outstanding customer service
- Robust educational tools (including online residential and small business energy audits)
- Partnerships with local retailers and contractors



Satisfaction

For each energy efficiency program and in each program year, DNV GL asked participants about their level of overall satisfaction with the program, using a five-point satisfaction scale where five meant "very satisfied" and one meant "very dissatisfied." The following figures show the percentage of respondents who gave each program a rating of four or five.

High participant satisfaction with Efficiency United's program has remained strong through the last four evaluation cycles, including the 2017 program year.

Figure 1: Satisfaction with Contractors and the Income Qualified Program, EY 2013-2014 through EY 2016-2017

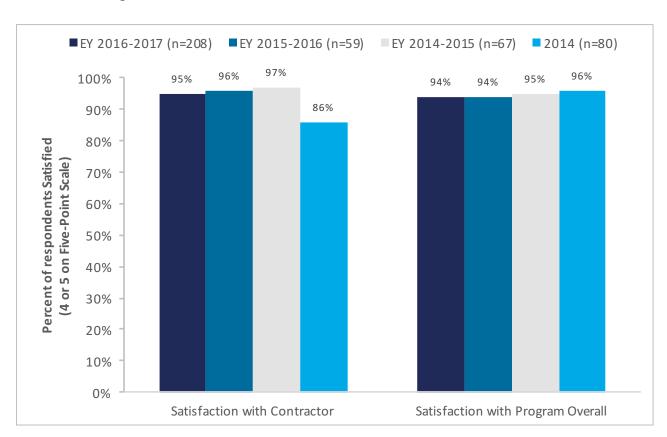


Figure 2: Satisfaction with Contractors and the Home Performance Program, EY 2013-2014 through EY 2016-2017

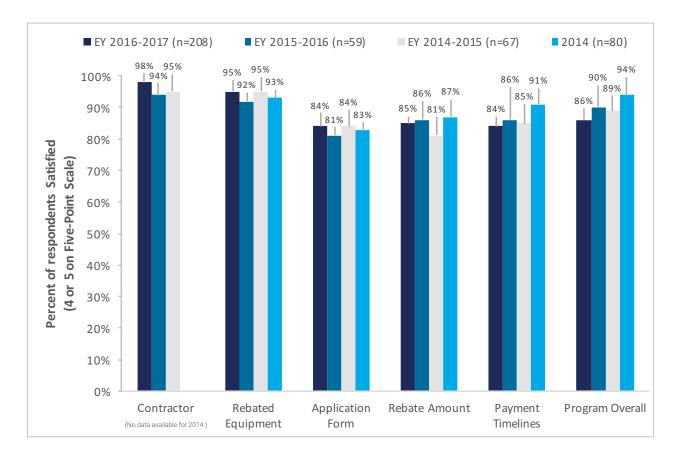


Figure 3: Satisfaction with Contractors and the ENERGY STAR® Program, EY 2013-2014 through EY 2016-2017

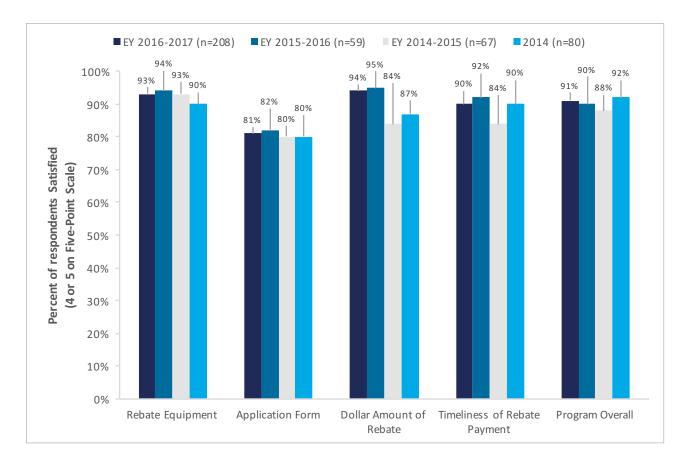
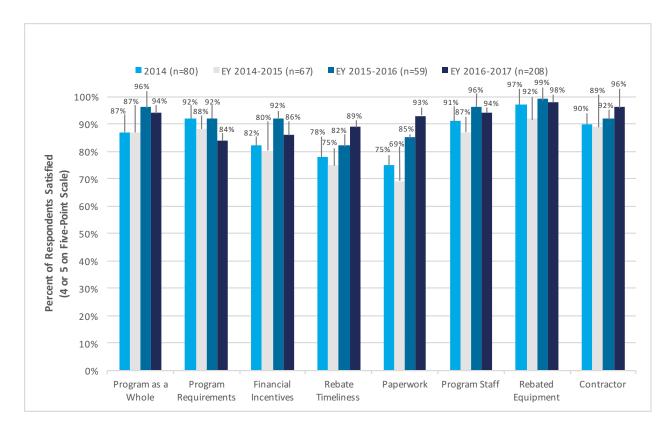


Figure 4: Percent Satisfied with the Commercial & Industrial Program Characteristics, EY 2013-2014 through EY 2016-2017



Portfolio Achievement

Efficiency United Natural Gas Total Incentives

Class	2017 Incentive Budget	2016 Incentive Unspent	Total Available 2017 Incentive Budget	Incentive Spent	Incentive Remaining*	Incentive Spent (% Portfolio)
Income Qualified	\$181,523	\$20,620	\$202,143	\$186,737	\$15,406	9%
Residential	\$953,052	\$309,020	\$1,262,072	\$1,549,703	\$(287,631)	79%
Commercial & Industrial	a Industrial \$434,087 \$		\$832,977 \$230,233		\$602,743	12%
Total	\$1,568,662	\$728,530	\$2,297,192	\$1,966,674	\$330,518	100%

^{*}Remaining incentive funds will be carried forward into the 2018 EWR Programs.

Efficiency United Natural Gas Total Implementation

Class	2017 Implementation Budget	Implementation Spent	Remaining	Implementation Spent (% Portfolio)
Income Qualified	\$121,015	\$121,015	-	11%
Residential	\$663,083	\$663,083	-	61%
Commercial & Industrial	\$302,015	\$302,015	-	28%
Total	\$1,086,113	\$1,086,113	-	100%

Efficiency United Natural Gas First-Year Therm Savings

Class	2017 Therm Target	Therm Achieved	% Achieved	% Portfolio
Income Qualified	186,540	219,049	117%	5%
Residential	922,856	1,333,912	145%	28%
Commercial & Industrial	1,547,948	3,275,057	212%	68%
Total	2,657,345	4,828,018	182%	100%

Efficiency United Electric Total Incentives

Class	2017 Incentive Budget	2016 Incentive Unspent	Total Available 2017 Incentive Budget	Incentive Spent	Incentive Remaining*	Incentive Spent (% Portfolio)
Income Qualified	\$307,620	\$20,118	\$327,738	\$315,673	\$12,065	10%
Residential	\$1,168,863	\$1,671,518	\$2,840,381	\$1,253,367	\$1,587,014	39%
Commercial & Industrial	\$1,181,865	\$1,162,935	\$2,344,799	\$1,611,591	\$733,208	51%
Total	\$2,658,347	\$2,854,571	\$5,512,918	\$3,180,631	\$2,332,287	100%

^{*}Remaining incentive funds will be carried forward into the 2018 EWR Programs.

Efficiency United Electric Total Implementation

Class	2017 Implementation Budget	Implementation Spent	Remaining	Implementation Spent (% Portfolio)
Income Qualified	\$205,080	\$205,080	-	11%
Residential	\$813,233	\$813,233	-	44%
Commercial & Industrial	\$822,279	\$822,279	-	45%
Total	\$1,840,591	\$1,840,591	-	100%

Efficiency United Electric First-Year kWh Savings

Class	2017 kWh Target	kWh Achieved	% Achieved	% Portfolio
Income Qualified	1,444,100	1,236,746	86%	2%
Residential	5,987,848	18,244,577	305%	33%
Commercial & Industrial	16,761,886	35,466,073	212%	65%
Total	24,193,833	54,947,396	227%	100%

The Appendix includes detailed Efficiency United collection breakdown by utility.





Energy-efficient homes use less energy and have lower monthly energy bills.
Unfortunately, not everyone has the means to make multifaceted costly updates and repairs to their home. The 2017
Efficiency United Income Qualified Energy Assistance Program provided Michigan's most vulnerable residents with no-cost energy-efficient equipment, home envelope upgrades, and education on the financial benefits of making energy-efficient choices.

Achieving the program's energy savings and incentive spending objectives required strategic partnerships with multiple community-based organizations and outreach events. The 2017 program year continued building on the success of previously established community-based partnerships, direct customer outreach and the Manufactured Home Initiative (MHI).



Program Offerings

To achieve program goals, Efficiency United formulated a course for long-term energy efficiency measure installation that focused on long-life building envelope, lighting and mechanical systems upgrades, and appliance replacements.

The 2017 Income Qualified Energy Assistance Program continued to place a sizeable focus on weatherizing manufactured homes. Nationally, manufactured homes are a leading source of affordable housing. Because manufactured homes, especially older models, use a lot of energy and are likely to leak that energy to the outside, the primary focus was duct and air sealing, which delivered great dividends by providing insulation, duct and air sealing services, and complimentary heating system tune-up services to more than 430 manufactured homes.

Eighty-five electric water heaters were replaced with hybrid models, which were more than three times more efficient. The new equipment created a substantial impact on energy usage for these income-qualified customers.

Blagec's [HVAC contractor] came yesterday and installed my hot water heater! I am very grateful for this program. I was finally able to draw a full bath last night for the first time in this home! Thanks so VERY much!

-Dena

The program assisted in the replacement of 47 heating systems, for customers whose equipment failed or was on the verge of failing; this alleviated the risk of leaving these customers without heat during the coldest part of the year.

Community-Based Partnerships

Efficiency United maximized the value of every dollar spent on energy efficiency upgrades by working in partnership with several Michigan nonprofit agencies to leverage additional funding from their budgets. By partnering with multiple Community Action Agencies, housing commissions and other nonprofit groups, Efficiency United's Income Qualified Energy Assistance Program was able to account for tremendous energy savings in 2017.

The statewide Community Action Agency Network continued to submit rebates for refrigerators, water heaters, air sealing, insulation, furnace replacement, and boiler replacement enhancements.

In 2017 program staff leveraged membership in the Michigan Housing Directors Association to network with Housing Commissions across the state. Housing commissions were able to leverage capital funds with EWR funds to make multifaceted valuable upgrades to their properties' lighting, and mechanical systems.

Furthermore, the Program provided services for three Native American tribes in the Upper Peninsula. Income-qualified members of the Keweenaw Bay Indian Community, Hannahville Indian Community, and Lac Vieux Desert Band of Lake Superior Chippewa Indians received capital improvements at no cost.

Customer Outreach

To balance participation and incentive funding distribution compared to previous years, the 2017 program increased its recruitment of eligible single-family homeowners. Program representatives engaged customers through outbound phone, email and direct mail campaigns. Participants were also referred to the program through the recommendation of past participants and the established Efficiency United contractor network.

Just a short letter of thanks...I can tell [the program] will lower my electric bill! Also, I wanted to thank you for such a kind and professional service. Everyone involved was very helpful. Thanks again!

-Ernie

Through phone, email and on-site communications, program representatives discussed no-cost services available to assist homeowners in overcoming their specific home comfort and home energy use concerns. In all, the education and no-cost services provided contributed to the program's mission of helping Michigan's underserved citizens reduce energy waste and get one step closer to self-sufficiency.

Income Qualified Program Incentive Budgets

Provider	2017 Incentive Budget	Incentive Carryforward Remaining from Previous Years	Total Available Incentive Budget	Incentive Spent	% of Budget Spent (Based on 2017 Incentive Budget)	Remaining Incentive Budget*							
ELECTRIC UTILITIES													
Alpena Power Company	\$31,189	-	\$31,189	\$32,560	104%	\$(1,371)							
Baraga Electric Utility	\$2,692	-	\$2,692	\$2,880	107%	\$(188)							
Bayfield Electric Cooperative	\$55	\$953	\$1,008	\$120	219%	\$888							
The City of Crystal Falls	\$2,850	\$29	\$2,879	\$2,885	101%	\$(6)							
The City of Dowagiac	\$8,729	\$77	\$8,806	\$9,350	107%	\$(544)							
The City of Gladstone Department of Power & Light	\$4,229	-	\$4,229	\$4,282	101%	\$(53)							
The City of Harbor Springs Electric Department	\$4,282	\$400	\$4,682	\$5,315	124%	\$(633)							
Hillsdale Board of Public Utilities	\$14,577	-	\$14,577	\$14,612	100%	\$(35)							
L'Anse Electric Utility	\$1,925	-	\$1,925	\$1,965	102%	\$(40)							
The City of Negaunee Electric Department	\$3,973	-	\$3,973	\$3,980	100%	\$(7)							
The City of Norway Department of Power & Light	\$4,222	-	\$4,222	\$4,222	100%	\$0							
Upper Peninsula Power Company	\$132,792	\$17,856	\$150,648	\$137,378	103%	\$13,271							
We Energies	\$54,768	-	\$54,768	\$54,780	100%	\$(12)							
Wisconsin Public Service	\$23,516	-	\$23,516	\$23,524	100%	\$(8)							
Xcel Energy	\$17,821	\$802	\$18,623	\$17,821	100%	\$802							
Total Electric	\$307,620	\$20,117	\$327,737	\$315,673	103%	\$12,064							
		NATURA	L GAS UTILITIES										
Michigan Gas Utilities	\$168,165	\$20,620	\$188,785	\$172,742	103%	\$16,043							
Wisconsin Public Service	\$6,117	-	\$6,117	\$6,279	103%	\$(162)							
Xcel Energy	\$7,241	-	\$7,241	\$7,716	107%	\$(475)							
Total Natural Gas	\$181,523	\$20,620	\$202,143	\$186,737	103%	\$15,406							

^{*}Incentive funds will be transfered form the residential Class where overdraws are present

Income Qualified Energy Savings

Provider	# of Participants	Annual kWh/Therm Goal	2017 kWh/ Therm Achieved	2016 Carryforward Savings	Total kWh/ Therm Achieved	% of Goal Achieved
		ELECT	RIC UTILITIES			
Alpena Power Company	19	138,727	54,235	46,242	100,477	72%
Baraga Electric Utility	2	5,510	5,056	1,837	6,893	125%
Bayfield Electric Cooperative	1	729	1,022	106	1,128	155%
The City of Crystal Falls	3	45,430	7,147	15,143	22,290	49%
The City of Dowagiac	4	55,218	15,304	18,406	33,710	61%
The City of Gladstone Department of Power & Light	6	36,177	8,404	7,635	16,039	44%
The City of Harbor Springs Electric Department	6	44,151	19,492	5,752	25,244	57%
Hillsdale Board of Public Utilities	11	70,376	227,621	23,459	251,080	357%
L'Anse Electric Utility	4	18,745	4,421	6,248	10,670	57%
The City of Negaunee Electric Department	7	36,738	13,752	12,246	25,997	71%
The City of Norway Department of Power & Light	10	14,338	10,827	4,779	15,606	109%
Upper Peninsula Power Company	116	475,705	252,245	145,753	397,998	84%
We Energies	47	272,932	102,021	90,977	192,999	71%
Wisconsin Public Service	45	141,325	51,987	21,508	73,494	52%
Xcel Energy	10	87,997	33,787	29,332	63,120	72%
Total Electric	291	1,444,100	807,323	429,423	1,236,746	86%
		NATURA	L GAS UTILITIE	S		
Michigan Gas Utilities	452	175,608	139,682	58,536	198,218	113%
Wisconsin Public Service	27	5,674	4,941	1,891	6,832	120%
Xcel Energy	14	5,259	12,246	1,753	13,999	266%
Total Natural Gas	493	186,540	156,868	62,180	219,049	117%





Residential Class Overview

Class Achievements

The Efficiency United Residential Program provided rebate incentives to encourage the adoption of energy efficiency equipment.

Efficiency United continued to offer a variety of program opportunities to its diverse residential customer base. These included:

- ENERGY STAR® Program
- Home Performance Program
- Residential Education Program
- Residential Pilot Program



Residential Program Incentive Budgets

Provider	2017 Incentive Budget	Incentive Carryforward Remaining from Previous Years	Total Available Incentive Budget	Incentive Spent	% of Budget Spent (Based on 2017 Total Available Budget)	Remaining Incentive Budget*							
ELECTRIC UTILITIES													
Alpena Power Company	\$111,394	\$119,539	\$230,934	\$164,663	71%	\$66,271							
Baraga Electric Utility	\$3,466	\$5,637	\$9,103	\$1,388	15%	\$7,715							
Bayfield Electric Cooperative	\$419	-	\$419	\$93	22%	\$326							
The City of Crystal Falls	\$10,857	-	\$10,857	\$7,213	66%	\$3,645							
The City of Dowagiac	\$19,627	\$21,705	\$41,332	\$7,201	17%	\$34,130							
The City of Gladstone Department of Power & Light	\$18,468	\$57,203	\$75,671	\$15,185	20%	\$60,486							
The City of Harbor Springs Electric Department	\$16,255	\$27,312	\$43,567	\$8,236	19%	\$35,330							
Hillsdale Board of Public Utilities	\$44,311	\$22,600	\$66,911	\$10,454	16%	\$56,457							
L'Anse Electric Utility	\$6,740	\$8,482	\$15,222	\$2,848	19%	\$12,374							
The City of Negaunee Electric Department	\$17,441	\$34,912	\$52,353	\$11,309	22%	\$41,044							
The City of Norway Department of Power & Light	\$21,907	\$6,972	\$28,880	\$15,868	55%	\$13,012							
Upper Peninsula Power Company	\$536,126	\$1,052,658	\$1,588,784	\$670,686	42%	\$918,098							
We Energies	\$236,868	\$262,011	\$498,878	\$189,387	38%	\$309,491							
Wisconsin Public Service	\$63,494	\$25,005	\$88,499	\$99,788	113%	\$(11,289)							
Xcel Energy	\$61,489	\$27,482	\$88,971	\$49,048	55%	\$39,923							
Total Electric	\$1,168,863	\$1,671,518	\$2,840,381	\$1,253,367	44%	\$1,587,014							
		NATURA	L GAS UTILITIES										
Michigan Gas Utilities	\$890,588	\$296,875	\$1,187,463	\$1,473,522	124%	\$(286,059)							
Wisconsin Public Service	\$29,027	\$5,208	\$34,235	\$37,158	109%	\$(2,922)							
Xcel Energy	\$33,437	\$6,937	\$40,375	\$39,024	97%	\$1,351							
Total Natural Gas	\$953,052	\$309,020	\$1,262,072	\$1,549,703	123%	\$(287,631							

^{*}Unspent incentive funds will be carried forward into the 2018 EWR Program

Residential Energy Savings

Provider	# of Participants	Annual kWh/ Therms Goal	2017 kWh/ Therms Achieved	2016 Carryforward Savings	Bulbs from 2015 & 2016	Total kWh/ Therms Achieved	% of Goal Achieved				
	ELECTRIC UTILITIES										
Alpena Power Company	10,707	374,173	3,645,833	124,724	35,000	3,805,557	1017%				
Baraga Electric Utility	40	25,014	15,663	8,338	1,278	25,279	101%				
Bayfield Electric Cooperative	4	867	2,085	89	45	2,219	256%				
The City of Crystal Falls	533	30,035	105,504	10,012	4,996	120,512	401%				
The City of Dowagiac	276	118,056	100,941	39,352	4,177	144,470	122%				
The City of Gladstone Department of Power & Light	364	133,884	190,825	28,255	4,150	223,230	167%				
The City of Harbor Springs Electric Department	237	153,660	121,914	20,019	4,967	146,900	96%				
Hillsdale Board of Public Utilities	339	300,174	148,678	100,058	3,367	252,103	84%				
L'Anse Electric Utility	291	32,226	51,121	10,742	2,796	64,659	201%				
The City of Negaunee Electric Department	785	78,249	236,750	26,083	9,744	272,577	348%				
The City of Norway Department of Power & Light	825	168,923	255,444	56,308	8,907	320,659	190%				
Upper Peninsula Power Company	14,526	2,137,443	5,266,737	654,898	77,237	5,998,872	281%				
We Energies	9,673	1,425,692	3,353,973	475,231	77,033	3,906,237	274%				
Wisconsin Public Service	4,647	542,371	1,664,781	82,541	38,332	1,785,654	329%				
Xcel Energy	3,740	467,081	975,902	155,694	44,052	1,175,648	252%				
Total Electric	46,987	5,987,848	16,136,151	1,792,344	316,082	18,244,577	305%				
		NA	TURAL GAS UTIL	ITIES							
Michigan Gas Utilities	4,245	862,150	938,905	287,383	-	1,226,288	142%				
Wisconsin Public Service	254	28,950	38,862	9,650	-	48,512	168%				
Xcel Energy	207	31,756	48,527	10,585	-	59,112	186%				
Total Natural Gas	4,706	922,856	1,026,294	307,618	-	1,333,912	145%				



ENERGY STAR Program

The Residential ENERGY STAR Program provided multiple paths and opportunities to Efficiency United residential customers. Program representatives engaged, educated and informed customers on how and why customers should take advantage of Efficiency United energy efficiency programs. Discounted pricing on high-efficiency products were also available to eligible customers through participating retailers and local sales events.

43,436
total participants

6,903
first-year net therm savings achieved
(55% of goal)

16,031,087
first-year net kWh savings achieved
(390% of goal)

\$656,406
incentives distributed

The ENERGY STAR Program offered financial rebates on the following products and appliances:

- LED light bulbs
- Handheld shower wand
- Showerheads
- Shower-start adapters
- Kitchen and bath aerators
- Hot-water pipe insulation
- Dishwasher
- Clothes washer
- Clothes dryers
- Televisions
- Air conditioning units
- Dehumidifiers
- Air purifiers
- Ceiling fans with light kit

Customer Outreach

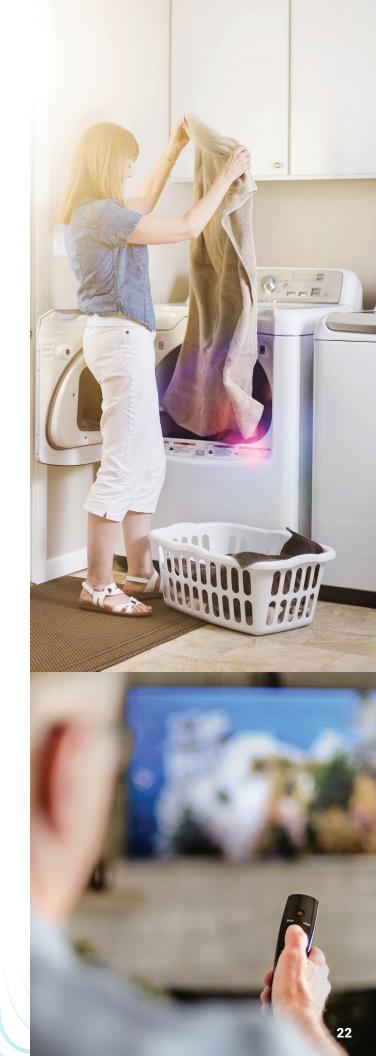
Program representatives attended public events and hosted stand-alone educational Day of Energy Savings (DOES) events throughout the Efficiency United service territory. Representatives cross-promoted all Efficiency United program offerings based on conversations with attendees. In addition, discounted energy-saving products were available for purchase by eligible customers.

2017 Day of Energy Savings event locations and dates:

- Dowagiac City Hall | March 6-7, May 1-2
- Hillsdale BPU office | March 27–28, May 22–23
- Port Huron Home Sport & Garden Show | March 18
- L'Anse Village Hall | April 5–6
- Harbor Springs City Hall | April 11–12, June 13–14
- Dowagiac City Hall | May 1-2
- Menominee City Hall | May 10-11
- Portage Lake District Library | May 17–18
- Negaunee Senior Center | June 7–8, Sept. 13–14
- Village of Baraga utility office | June 28–29

ENERGY STAR Appliance Rebate Program

Through the Efficiency United ENERGY STAR Appliance Rebate Program, customers accessed mail-in rebate opportunities for a variety of qualifying energy-efficient appliances. Program representatives continually educated retailer employees to help them understand program guidelines and how to encourage consumer adoption of high-efficiency appliances. Marketing materials were also updated and replenished often to further empower retailer employees as program ambassadors.



ENERGY STAR Program Overview

Provider	# of Participants	Incentive Spent	2016 Carryforward Savings	Bulbs from 2015 & 2016	2017 kWh/ Therms Achieved	Total kWh/ Therms Achieved	2017 Annual kWh/Therms Goal	% of Savings Goal Achieved			
ELECTRIC UTILITIES											
Alpena Power Company	10,401	142,243	114,095	35,000	3,566,342	3,715,438	304,750	1219%			
Baraga Electric Utility	18	475	6,454	1,278	13,516	21,248	17,472	122%			
Bayfield Electric Cooperative	1	79	89	45	2,037	2,172	739	294%			
The City of Crystal Falls	334	3,348	5,216	4,996	95,453	105,665	12,502	845%			
The City of Dowagiac	221	3,112	24,120	4,177	85,874	114,171	63,864	179%			
The City of Gladstone Department of Power & Light	229	4,457	23,741	4,150	137,156	165,047	101,062	163%			
The City of Harbor Springs Electric Department	155	2,631	17,867	4,967	83,087	105,922	123,019	86%			
Hillsdale Board of Public Utilities	268	3,707	64,354	3,367	111,042	178,762	173,995	103%			
L'Anse Electric Utility	81	1,557	4,592	2,796	46,404	53,791	12,033	447%			
The City of Negaunee Electric Department	644	6,805	18,165	9,744	217,755	245,664	48,088	511%			
The City of Norway Department of Power & Light	751	9,451	46,830	8,907	237,189	292,926	128,296	228%			
Upper Peninsula Power Company	13,477	291,103	415,978	77,237	4,285,122	4,778,338	1,224,875	390%			
We Energies	9,260	103,898	391,321	77,033	3,059,034	3,527,388	1,062,066	332%			
Wisconsin Public Service	4,443	51,338	73,572	38,332	1,509,399	1,621,303	434,684	373%			
Xcel Energy	2,885	25,884	146,617	44,052	912,585	1,103,253	398,032	277%			
Total Electric	43,168	650,087	1,353,008	316,082	14,361,997	16,031,087	4,105,476	390%			
			NATURAL GA	S UTILITIES							
Michigan Gas Utilities	213	5,778	3,592	-	1,340	4,932	9,737	51%			
Wisconsin Public Service	53	508	895	-	878	1,773	2,428	73%			
Xcel Energy	2	33	174	-	25	199	474	42%			
Total Natural Gas	268	6,319	4,661	-	2,242	6,903	12,639	55%			



Appliance Recycling Program

The Appliance Recycling Program offered in-home collection of refrigerators, freezers, room air conditioners, and dehumidifiers. Participation was generated through direct mail flyers, utility bill inserts, promotion at other Efficiency United events, and Efficiency United and member utility websites, including the Efficiency United Facebook page. Participation was also encouraged financially by offering this service at no cost and issuing a \$50 incentive per freezer or refrigerator and a \$15 incentive per room air conditioners and dehumidifiers.

The 2017 Efficiency United Appliance Recycling Program retrieved and responsibly recycled 370 appliances. As in previous years, refrigerators were the most popular appliance recycled and accounted for 58 percent of all appliances recycled in 2017.



Appliance Recycling Program Overview

Provider	# of Participants	Incentive Spent	2016 Carryforward Savings	2017 kWh/ Therm Achieved	Total kWh/ Therm Achieved	2017 Annual kWh/Therm Goal	% of Savings Goal Achieved
		EL	ECTRIC UTIL	ITIES			
Alpena Power Company	7	\$1,188	2,784	6,125	8,909	7,437	120%
Baraga Electric Utility	0	-	1,344	-	1,344	3,639	37%
The City of Crystal Falls	0	-	2,708	-	2,708	6,490	42%
The City of Dowagiac	0	-	2,547	-	2,547	6,743	38%
The City of Gladstone Department of Power & Light	11	\$2,124	2,512	10,991	13,502	10,691	126%
The City of Harbor Springs Electric Department	1	\$149	696	680	1,375	4,791	29%
Hillsdale Board of Public Utilities	0	-	7,812	-	7,812	21,121	37%
L'Anse Electric Utility	0	-	3,885	-	3,885	10,180	38%
The City of Negaunee Electric Department	2	\$194	3,716	780	4,496	9,838	46%
The City of Norway Department of Power & Light	4	\$1,130	4,571	5,627	10,197	12,522	81%
Upper Peninsula Power Company	150	\$28,040	57,784	141,510	199,293	170,148	117%
We Energies	43	\$8,017	26,156	40,224	66,379	70,988	94%
Wisconsin Public Service	31	\$6,525	6,033	31,951	37,985	35,647	107%
Xcel Energy	0	-	2,214	-	2,214	6,010	37%
Total Electric	249	\$47,365	124,761	237,887	362,647	376,246	96%



Home Performance Program

Through the Home Performance Program, residential customers gained access to financial and educational resources to improve indoor comfort and reduce energy waste within their homes.

5,059
total participants

1,242,299
first-year net therm savings achieved
(151% of goal)

1,352,920
first-year net kWh savings achieved
(148% of goal)

\$1,932,380
incentives distributed

The Home Performance Program offered financial rebates on the following equipment:

- Home heating systems
- Home heating add-on upgrades (such as boiler reset controls and thermostats)
- Water heaters
- Insulation
- Air sealing and duct sealing
- Windows

The following no-cost educational services were also available to eligible participants:

- Joint Energy Efficiency Plan (JEEP)
- Manufactured Home Initiative (MHI)
- Self-paced Home Energy Audit

Contractor Network

The network of partnering contractors remained consistent (with a one percent increase) compared to 2016 participation rates. In addition, contractor satisfaction reached a four-year high at 98 percent.

This affirms contractors' support of and confidence in this program. It also testifies to the efforts of the program's dedicated outreach field team, which continually demonstrated program value to contractors through these activities:

- Serving as a personal program connection
- Providing timely communication regarding application status or pending rebate structure adjustments
- Offering co-branded marketing opportunities
- Facilitating on-site technician and sales rebate training
- Connecting contractors with new technologies through the Residential Pilot Program
- Coaching on market differentiation
- Soliciting and incorporating contractor feedback into program design

Joint Energy Efficiency Plans

Joint Energy Efficiency Plans (JEEPs) leveraged long-term relationships with customers to promote efficiency upgrades. During the complimentary service, a qualified program representative provided an assessment of the home's appliances, envelope, and mechanical systems. Depending on eligibility, customers may have also received upgrades such as high-efficiency faucet aerators, showerheads and water heater pipe insulation, installed at no cost. Homeowners' specific energy and comfort concerns were discussed, and the qualified program representative provided practical solutions. Recommendations were aligned with available program rebates. However, because JEEPs are unique to each customer, recommendations were also based on homeowners' objectives, lifestyle, and handiness.

Manufactured Home Initiative

The Manufactured Home Initiative (MHI) was created in 2015 to provide non-traditional energy efficiency enhancements to customers who live in manufactured homes. Manufactured homes are defined as factory-built pre-fabricated housing, mobile homes and homes within mobile home-type communities but do not include homes traditionally built entirely on the construction site. The program addressed market barriers that commonly prevent these customers from accessing deeper energy-saving improvements.

The 2017 MHI program again proved to be a successful delivery channel by achieving cost-effective first-year and lifetime therm savings. This was met through the strategic utilization of short-life low-cost energy improvements combined with long-life improvements performed at special pricing based on contractor volume and exclusivity. Eligible enhancements included:

- High-efficiency showerheads and faucet aerators
- Water-heater pipe insulation
- Furnace tune-ups
- Programmable thermostats
- Air sealing
- Duct system repair and sealing

Self-Paced Home Energy Audit

Customers were offered an opportunity to conduct a self-guided home energy audit through a secure portal accessed from the Efficiency United website. During this audit, in just a few minutes and through colorful dashboards, homeowners gain a deeper understanding of how their home uses and loses energy. Tips, tricks and other helpful recommendations were provided within each summary report to guide homeowners along their journey to improving indoor home comfort while reducing energy waste.

Home	Performance	Drogram	Ονρινίοω
	Periornance	: Program	Overview

Provider	# of Participants	Incentive Spent	2016 Carryforward Savings	2017 kWh/ Therm Achieved	Total kWh/ Therm Achieved	2017 Annual kWh/Therm Goal	% of Savings Goal Achieved
		EI	LECTRIC UTILI	TIES			
Alpena Power Company	35	\$11,509	7,845	32,317	40,162	20,954	192%
Baraga Electric Utility	1	\$800	540	1,231	1,771	1,461	121%
Bayfield Electric Cooperative	0	-	-	-	-	-	-
The City of Crystal Falls	4	\$3,510	2,089	7,787	9,876	5,006	197%
The City of Dowagiac	4	\$2,810	12,685	4,709	17,394	33,587	52%
The City of Gladstone Department of Power & Light	10	\$4,600	2,003	8,867	10,870	8,525	127%
The City of Harbor Springs Electric Department	15	\$4,075	1,456	22,727	24,183	10,025	241%
Hillsdale Board of Public Utilities	18	\$3,290	27,893	11,125	39,018	75,414	52%
L'Anse Electric Utility	7	\$1,070	2,265	3,189	5,454	5,936	92%
The City of Negaunee Electric Department	14	\$3,740	4,202	14,765	18,967	11,124	171%
The City of Norway Department of Power & Light	12	\$4,570	4,907	7,131	12,038	13,444	90%
Upper Peninsula Power Company	534	\$310,842	181,137	658,185	839,322	533,369	157%
We Energies	91	\$56,489	57,754	116,728	174,482	156,749	111%
Wisconsin Public Service	73	\$39,848	2,936	102,919	105,855	17,344	610%
Xcel Energy	50	\$21,153	6,863	46,665	53,528	18,632	287%
Total Electric	868	\$468,307	314,574	1,038,346	1,352,920	911,571	148%
		NAT	URAL GAS UT	ILITIES			
Michigan Gas Utilities	3,935	\$1,390,477	283,792	855,003	1,138,795	769,392	148%
Wisconsin Public Service	101	\$35,700	8,755	36,946	45,701	23,752	192%
Xcel Energy	155	\$37,897	10,411	47,392	57,803	28,321	204%
Total Natural Gas	4,191	\$1,464,074	302,958	939,341	1,242,299	821,465	151%

Education Program

Efficiency United continued its partnership with the National Energy Foundation (NEF) to delivery its Education Program. The Think! Energy® Program encouraged teachers and their students to Think! about energy, Talk! about energy, and Take Action! to save energy for the future.

The NEF Think! Energy Program consisted of three facets:

- Think! Energy classroom presentations
- Community in Action (CIA) events
- Teacher workshops

Interactive classroom presentations were delivered September through October. Presentations were generally 45–60 minutes in length and were facilitated by an NEF presenter. Utility collaboration continued with SEMCO Energy Gas Company and DTE Energy. These collaborations allowed a total of 35 schools to be served this program year. Energy efficiency kits were placed in 2,328 Michigan homes, and 1,847 Home Energy Worksheets (HEWs) were returned—a 79.3 percent return rate. Additional information related to the Think! Energy Program as well as the CIA events and teacher workshops are available in the full annual report submitted by NEF and included as **Exhibit A-1**.

In all, the 2017 Think! Energy Program reached 4,561 students and 164 teachers through the distribution of 3,945 energy-saving kits. SEMCO collaborated with eight electric utilities to deliver 37 of the 53 classroom presentations. Those utilities included five Efficiency United participating utilities and DTE Energy, Consumers Energy, and Holland Board of Public Works





Education Program Overview

Provider	Incentive Spent	2017 kWh/ Therm Achieved	2017 Annual kWh/ Therm Goal	% of Savings Goal Achieved
		ELECTRIC UTILITIES		
Alpena Power Company	\$3,644	15,387	15,387	100%
Baraga Electric Utility	\$113	916	916	100%
Bayfield Electric Cooperative	\$14	48	48	100%
The City of Crystal Falls	\$355	2,264	2,264	100%
The City of Dowagiac	\$642	5,198	5,198	100%
The City of Gladstone Department of Power & Light	\$604	5,102	5,102	100%
The City of Harbor Springs Electric Department	\$532	5,934	5,934	100%
Hillsdale Board of Public Utilities	\$1,450	11,117	11,116	100%
L'Anse Electric Utility	\$221	1,529	1,529	100%
The City of Negaunee Electric Department	\$571	3,450	3,450	100%
The City of Norway Department of Power & Light	\$717	5,498	5,498	100%
Upper Peninsula Power Company	\$17,540	78,394	78,394	100%
We Energies	\$7,749	50,959	50,959	100%
Wisconsin Public Service	\$2,077	20,511	20,511	100%
Xcel Energy	\$2,012	16,652	16,652	100%
Total Electric	\$38,240	222,958	222,958	100%
	NA	TURAL GAS UTILITIES		
Michigan Gas Utilities	\$29,136	31,133	31,133	100%
Wisconsin Public Service	\$950	1,039	1,039	100%
Xcel Energy	\$1,094	1,110	1,110	100%
Total Natural Gas	\$31,179	33,282	33,282	100%



Pilot Programs

ComfortGuard Pilot

ComfortGuard is a new comprehensive home heating and cooling monitoring system created by Emerson. Through a series of professionally installed sensors operating 24 hours a day, this device calculates actual operational efficiency and cost, predicts costly breakdowns before they occur, and protects a customer's investment.





Each time the home heating or cooling system operates, sensors send data to Emerson's secure cloud using the homeowner's wireless network. Sensor data is then monitored regularly through proprietary algorithms and, when necessary, reviewed by Emerson engineers. These steps are implemented to ensure integrity behind every maintenance reminder or impending mechanical failure alert transmitted to the homeowner's secure web portal. Real-time fluctuations in heating or cooling system performance will be monitored for 24 months following installation. ComfortGuard boasts features and benefits for homeowners, contractors, manufacturers and utilities.

ComfortGuard Features and Benefits

Features and Benefits	Homeowner	Contractor	Manufacturer	Utility
True system performance monitoring	X			X
Proactive system failure alerts	X	X	X	X
Verification and authenticity of installation or services rendered	X	X	X	X
Warranty service accountability	X	X	X	
Service cost reduction	X			

The ComfortGuard Pilot was launched in early June 2017 with the following goals:

- Evaluate claimed comfort and financial benefits of the ComfortGuard system
- Determine energy savings resulting from a properly installed system
- Identify potential demographic and behavioral data to influence future program designs

Participant Eligibility and Engagement

The pilot partnered with Johnstone Supply, a national parts supplier for multiple industries, to help recruit, train and provide ComfortGuard products to participating contractors. The Sheehan Johnstone Supply Group encompasses Eastern Michigan and Toledo Johnstone Supply branches and held the Michigan ComfortGuard distribution license at the time of the pilot. In collaboration with the Sheehan Johnstone Supply Group, the pilot team successfully recruited and trained a network of HVAC-R contractors on pilot guidelines, eligibility and installation standards.

A recent Emerson study on residential heating and cooling systems determined slightly less than half of newly installed systems are installed incorrectly, and nearly three-quarters of existing systems are near breakdown. In preliminary studies, ComfortGuard commonly identified these system performance issues: Wiring issues (30 percent), incorrect fan speed settings (20 percent) or refrigerant loop issues (5 percent). To ensure confidence that this opportunity was not a bait-and-switch furnace replacement program, participants were allotted up to \$500 toward an eligible repair credit as ComfortGuard deemed necessary.

Approximately 44 percent of the 178 units installed through the pilot required some utilization of the available repair credit budget.¹

Listing of Contractors	City
Ace Heating and Air Conditioning LLC	Niles
All Temp Heating and Cooling of Monroe	Monroe
Complete Home Comfort	Monroe
Mac's All-Temp, Inc	Hillsdale
Millers Nu Tech Plumbing and Heating	Monroe
Rawlings Heating & Cooling	Temperance

¹ A full report on the ComfortGuard Pilot is available upon request.

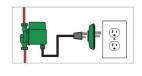
TACO Smart Plug & Smart Pump Pilot

TACO Smart Plug

The SmartPlug system proves to be an efficient way to monitor and control circulation in water heating equipment for optimal and efficient operation, that in turn, reduces energy use and expense.

The Smart Plug upgrades any water recirculation pump with a power cord to "Smart" operation, through a simple connection to a 110V power supply. Using a sensor mounted to the hot water supply pipe, the SmartPlug will record the daily hot water usage pattern in a home and adjust the circulator run time automatically; thereby making hot water available as needed. If usage patterns in a home change, the SmartPlug automatically adjusts to meet the altered needs.





Participation Eligibility and Engagement

The pilot was launched in early June 2017 with the following goals.

- Evaluate claimed and financial benefits of the use of the TACO Smart Plug and TACO Smart Pump
- Determine energy savings resulting from the installation
- Identify potential demographic and behavioral data to influence future program design
- Record energy use of the existing circulation pump in the home, before and after the installation of the TACO Smart Plug, using a data logger

Listing of Contractors	City
Willam Hyrkus Plumbing & Heating	Houghton
Home Comfort Plumbing & Heating	Wilson
Superior Heating & A/C	Quinnesec
Millers Plumbing, Heating, Air conditioning	Kingsford
Henry Heating	Hubbard Lake
G & K Plumbing & heating	Herron

TACO Hot Link Plus Smart Pump

The TACO Hot-LinkPlus for domestic hot water recirculation reduces the time it takes for hot water comfort to reach showers and faucets by recirculating "cooled" water back to the water heater; hot water lines remain hot. The Hot-LinkPlus can save an average family up to 12,000 gallons per year, utilizing existing plumbing and with easy installation.

When set to "Smart" mode, the Hot-LinkPlus circulator monitors and records the home's hot water usage pattern and repeats the pattern to cycle the pump, providing instant hot water at all fixtures only when needed. An optional "pulse" mode can be selected which sets the circulator to run for five minutes every 10 minutes, while also offering an automatic vacation mode which activates after 36 hours of hot water inactivity.



Pilot Program Overview

Provider	# of Participants	Incentive Spent	2017 kWh/Therm Achieved	2017 Annual kWh/ Therm Goal	% of Savings Goal Achieved
		ELECTRIC U	TILITIES		
Alpena Power Company	8	\$6,078	25,661	25,645	100%
Baraga Electric Utility	0	-	-	1,526	0%
Bayfield Electric Cooperative	0	-	-	80	0%
The City of Crystal Falls	0	-	-	3,773	0%
The City of Dowagiac	1	\$637	5,160	8,664	60%
The City of Gladstone Department of Power & Light	4	\$3,400	28,709	8,503	338%
The City of Harbor Springs Electric Department	1	\$850	9,485	9,891	96%
Hillsdale Board of Public Utilities	4	\$2,007	15,393	18,527	83%
L'Anse Electric Utility	0	-	-	2,549	0%
The City of Negaunee Electric Department	0	-	-	5,749	0%
The City of Norway Department of Power & Light	0	-	-	9,163	0%
Upper Peninsula Power Company	30	\$23,162	103,525	130,657	79%
We Energies	16	\$13,234	87,028	84,931	102%
Wisconsin Public Service	0	-	-	34,185	0%
Xcel Energy	0	-	-	27,754	0%
Total Electric	64	\$49,369	274,963	371,597	74%
		NATURAL GAS	SUTILITIES		
Michigan Gas Utilities	48	\$48,131	51,430	51,888	99%
Wisconsin Public Service	0	-	-	1,731	6
Xcel Energy	0	-	-	1,851	10
Total Natural Gas	48	\$48,131	51,430	55,470	93%





Commercial & Industrial Class Overview

442
total participants

3,275,057
first-year therm savings achieved
(212% of goal)

35,466,073
first-year kWh savings achieved
(212% of goal)

\$1,841,824
incentives distributed

Class Achievements

The Efficiency United Commercial & Industrial (C&I) Programs provided rebate incentives to encourage the adoption of high-efficiency equipment. CLEAResult utilizes an energy advisor model to perform outreach that offers customers a streamlined approach and the necessary expertise to assist them in developing projects. The assigned energy advisors also work very closely with trade allies both within the Efficiency United service area and those regional trade allies working with Efficiency United customers.

Efficiency United continued to offer a variety of program opportunities to its diverse C&I customer base, including:

- C&I Prescriptive & Custom Program
- Education Program
- Commercial Pilot Program
- Special-funded initiatives

Commercial & Industrial Program Incentive Budgets

Provider	Incentive Budget	Incentive Carryforward Remaining	Total Available Incentive Budget	Incentive Spent	% of Budget Spent (Based on 2017 Total Available Budget)	Remaining Incentive Budget*
		ELI	ECTRIC UTILITIE	S		
Alpena Power Company	\$126,945	\$74,853	\$201,797	\$169,631	134%	\$32,167
Baraga Electric Utility	\$17,102	\$25,644	\$42,746	\$16,625	97%	\$26,122
Bayfield Electric Cooperative	-	-	-	-	-	-
The City of Crystal Falls	\$10,921	\$10,583	\$21,504	\$20,231	185%	\$1,273
The City of Dowagiac	\$47,081	\$2,872	\$49,952	\$42,096	89%	\$7,857
The City of Gladstone Department of Power & Light	\$13,847	\$30,064	\$43,911	\$24,008	173%	\$19,902
The City of Harbor Springs Electric Department	\$16,468	\$4,642	\$21,110	\$19,404	118%	\$1,706
Hillsdale Board of Public Utilities	\$67,080	\$75,970	\$143,049	\$142,950	213%	\$99
L'Anse Electric Utility	\$7,969	\$9,918	\$17,887	\$9,507	119%	\$8,380
The City of Negaunee Electric Department	\$12,921	\$22,725	\$35,646	\$22,670	175%	\$12,976
The City of Norway Department of Power & Light	\$10,353	\$17,823	\$28,176	\$8,737	84%	\$19,438
Upper Peninsula Power Company	\$478,629	\$513,746	\$992,375	\$719,261	150%	\$273,113
We Energies	\$181,652	\$253,374	\$435,026	\$206,518	114%	\$228,508
Wisconsin Public Service	\$116,208	\$89,015	\$205,223	\$124,367	107%	\$80,856
Xcel Energy	\$74,690	\$31,706	\$106,396	\$85,586	115%	\$20,811
Total Electric	\$1,181,865	\$1,162,935	\$2,344,799	\$1,611,591	136%	\$733,208
NATURAL GAS UTILITIES						
Michigan Gas Utilities	\$394,476	\$383,594	\$778,070	\$216,085	55%	\$561,985
Wisconsin Public Service	\$17,717	\$6,521	\$24,238	\$10,332	58%	\$13,906
Xcel Energy	\$21,894	\$8,775	\$30,669	\$3,816	17%	\$26,853
Total Natural Gas	\$434,087	\$398,890	\$832,977	\$230,233	53%	\$602,743

^{*}Unspent incentive funds will be carried forward into the 2018 EWR Program

Commercial & Industrial Program Energy Savings

Provider	# of Participants	Annual kWh/ Therm Goal	2017 kWh/ Therm Achieved	2016 Carryforward Savings	Total kWh/ Therm Achieved	% of Savings Goal Achieved*
		ELE	CTRIC UTILITIE	S		
Alpena Power Company	52	2,904,007	4,565,833	968,002	5,533,835	191%
Baraga Electric Utility	5	155,772	243,864	51,924	295,788	190%
Bayfield Electric Cooperative	-	-	-	-	-	-
The City of Crystal Falls	13	88,355	1,026,452	29,452	1,055,904	1,195%
The City of Dowagiac	6	477,096	635,364	159,032	794,396	167%
The City of Gladstone Department of Power & Light	12	147,209	404,364	31,067	435,431	296%
The City of Harbor Springs Electric Department	8	179,839	385,889	23,429	409,318	228%
Hillsdale Board of Public Utilities	21	821,844	3,399,807	273,948	3,673,755	447%
L'Anse Electric Utility	6	66,738	131,623	22,246	153,869	231%
The City of Negaunee Electric Department	9	110,446	436,414	36,815	473,229	428%
The City of Norway Department of Power & Light	8	87,105	188,640	29,035	217,675	250%
Upper Peninsula Power Company	118	5,401,628	9,303,592	1,655,023	10,958,615	203%
We Energies	78	3,489,159	5,994,113	1,163,053	7,157,166	205%
Wisconsin Public Service	38	1,992,247	2,397,161	303,190	2,700,351	136%
Xcel Energy	21	840,439	1,326,594	280,146	1,606,740	191%
Total Electric	395	16,761,886	30,439,710	5,026,363	35,466,073	212%
		NATU	RAL GAS UTILIT	TES		
Michigan Gas Utilities	36	1,415,074	2,696,904	471,691	3,168,595	224%
Wisconsin Public Service	10	100,138	47,548	33,379	80,927	81%
Xcel Energy	1	32,737	14,622	10,912	25,535	78%
Total Natural Gas	47	1,547,948	2,759,075	515,983	3,275,057	212%

^{*} Savings achieved includes Self Direct achievements

Prescriptive & Custom Program

The Efficiency United C&I Prescriptive and Custom Program provides incentives for high-efficiency equipment upgrades in nonresidential facilities. The prescriptive portion offers pre-determined rebates generally associated with one-for-one retrofits and most new construction projects. The custom portion allows customers to capture rebates for more unique and innovative energy waste reduction (EWR) projects.

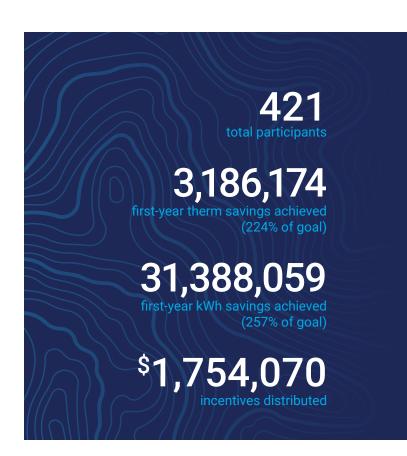
As in previous years, Efficiency United utilized an energy advisor outreach model for the 2017 program year, which provided direct contact with end-use customers and trade allies. This model once again proved its success by producing many new opportunities in 2017.

In addition, C&I Program participants were encouraged to work with their energy advisor to develop or update a Joint Energy Efficiency Plan (JEEP). These plans are designed to provide customers with a starting point for long-term energy planning and establishing a strategic energy plan.

In 2017, Efficiency United offered several initiatives (bonuses) in targeted service areas, customer populations, and specific technologies. Specifically, these initiatives were designed to:

- Generate additional project activity early in the year. Historically, project activity has been heaviest in the last half of the year, particularly in the Upper Peninsula. Bonuses were paid to projects for early completion (end of the first or second quarter), with the bonus being reduced for the second quarter initiative. The goal of this initiative was to help trade allies move from a largely seasonal-based business to a yearround business.
- Assist not-for-profit business (schools/ institutions/houses of worship/nonprofits) with upgrades.

- Promote specific technologies. A bonus was offered to projects installing variable frequency drives for process activities or DLC®
 Premium lighting.
- Generate trade ally interest. In one challenging service area, a bonus was offered to trade allies to participate in the program.



Overall, the calendar-based bonuses had the best participation and after two years of offering additional assistance to 'early bird' projects, we have seen a significant response by customers and trade allies to plan and implement projects early in the program year.

Through outreach efforts by the C&I energy advisors and, ultimately, customer and trade ally participation, the Prescriptive & Custom Program exceeded its energy savings objectives.

Market Changes

The C&I Program continues to see two large-scale changes in the marketplace in the areas of lighting and controls.

- Since 2013, the Efficiency United service territories have seen a dramatic shift to the adoption of LED lighting. Exterior LED projects gained market acceptance first, but interior LED projects now make up a substantial part of the Efficiency United electric project portfolio. In 2017, essentially all lighting projects utilized LEDs. Supply constraints that were witnessed in 2016 did not materialize in 2017.
- The C&I sector continues to adopt digital controls primarily for process and HVAC projects to capture energy savings. This technology upgrade is becoming more affordable and accessible to almost all utility customers.

Outreach Efforts

The main source of outreach is performed through one-on-one relationships developed by the C&I energy advisors. The C&I Program has been very fortunate to have very little turnover with its outreach staff. As a result, they have developed close partnerships with customers and trade allies. In addition to these relationships, the Efficiency United C&I outreach team participated in multiple events to assist in marketing the program.

These events included but were not limited to:

- Upper Peninsula Builders Show
- Michigan C&I Energy Conferences
- Michigan School Business Officials Annual Conference and Exhibit Show
- Upper Peninsula State Fair
- Upper Peninsula Energy Summit
- Blue Water Area Chamber of Commerce event
- Mechanical Plumbing and Mechanical Contractors Association Annual Expo
- Michigan Energy Efficiency Contractors Association events
- Michigan Energy Innovation Business Council

C&I Prescriptive and Custom Program Overview

Number of Participants	Total Incentives Distributed	First-Year Therms Achieved	First-Year kWh Achieved
421	\$1,754,070	3,186,174	31,388,059
		(224% of goal)	(257% of goal)

Commercial and Industrial Prescriptive and Custom Program Overview

Provider	# of Participants	Incentive Spent	2016 Carryforward Savings	2017 kWh/ Therm Achieved	Total kWh/ Therm Achieved	2017 Annual kWh/Therm Goal	% of Savings Goal Achieved
		ELECTRIC UTILI	TIES				
Alpena Power Company	51	\$163,478.83	968,002	3,112,637	4,080,639	1,396,821	292%
Baraga Electric Utility	4	\$15,597.23	51,924	235,283	287,207	143,310	200%
Bayfield Electric Cooperative							
The City of Crystal Falls	12	\$19,575.04	29,452	1,021,585	1,051,037	81,287	1293%
The City of Dowagiac	6	\$40,555.51	159,032	621,051	780,083	438,928	178%
The City of Gladstone Department of Power & Light	11	\$23,176.71	31,067	396,255	427,322	135,432	316%
The City of Harbor Springs Electric Department	7	\$17,967.67	23,429	371,502	394,931	165,452	239%
Hillsdale Board of Public Utilities	20	\$137,097.68	273,948	3,334,060	3,608,007	756,096	477%
L'Anse Electric Utility	5	\$9,028.03	22,246	127,947	150,193	61,399	245%
The City of Negaunee Electric Department	8	\$21,894.11	36,815	430,330	467,145	101,611	460%
The City of Norway Department of Power & Light	7	\$8,115.45	29,035	183,841	212,876	80,137	266%
Upper Peninsula Power Company	117	\$699,602.78	1,655,023	9,100,148	10,755,171	4,969,498	216%
We Energies	76	\$190,670.50	1,163,053	3,788,283	4,951,336	1,283,328	386%
Wisconsin Public Service	38	\$120,565.28	303,190	2,337,394	2,640,584	1,832,868	144%
Xcel Energy	21	\$83,141.98	280,146	1,301,380	1,581,527	773,204	205%
Total Electric	383	\$1,550,466.80	5,026,363	26,361,696	31,388,059	12,219,371	257%
	٨	NATURAL GAS UT	ILITIES				
Michigan Gas Utilities	28	\$191,574.38	471,691	2,616,276	3,087,967	1,301,868	237%
Wisconsin Public Service	9	\$8,928.70	33,379	40,275	73,654	92,127	80%
Xcel Energy	1	\$3,100.00	10,912	13,640	24,553	30,118	82%
Total Natural Gas	38	\$203,603.08	515,983	2,670,191	3,186,174	1,424,113	224%

Education Program

The 2017 Efficiency United C&I Education
Program focused primarily on the
continuation of previous years' education
initiatives. These initiatives included the
Michigan Commercial & Industrial Energy
Conference, a Commercial Online Audit,
outreach through Michigan Interfaith Power
& Light, and the Tool Library lending program.

Michigan Commercial & Industrial Energy Conference (MCIEC)

The MCIECs were held in Battle Creek and Harris, Michigan. Efficiency United collaborated with Consumers Energy, DTE Energy, Efficiency United and Energy Optimization on these conferences. These sponsorships allowed the organization's respective customers to attend the educational event at no cost. The one-day events featured exhibitors, breakout sessions, and multiple networking opportunities for participants to learn about energy use and energy efficiency.

The 2017 conference in Harris saw more than 100 attendees; the Battle Creek event had more than 300 attendees.

	Battle Creek (LP)	Harris (UP)
Number of Participants	324	112

Commercial Online Audit

The Commercial Online Audit offers customers a quick and simplified audit report based on information provided and questions answered using online software.

Michigan Interfaith Power & Light (Michigan IPL)

The remaining C&I Education funds were used in collaboration with Michigan IPL as a Michigan-



based advocate and resource for energy efficiency at houses of worship. Michigan IPL's role was to leverage its relationship with houses of worship to be a voice and resource for energy efficiency information at scheduled events (six were held in 2017) and to establish a website and social media campaign.

	Presentations
Number of Participants	235 (6 events)

Tool Library

The Tool Library Program continues to be offered to customers. This program was initiated in 2014 when the tools were purchased. These measurement and verification tools are available to all Efficiency United customers on a no-fee basis to help them better understand and quantify energy opportunities. These tools are also utilized by program staff in assisting customers.

Education Program Overview

Provider	Incentive Spent	2017 kWh/Therm Achieved	2017 Annual kWh/Therm Goal	% of Savings Goal Achieved
		ELECTRIC UTILITIES		
Alpena Power Company	\$4,153	45,549	45,549	100%
Baraga Electric Utility	\$560	4,673	4,673	100%
Bayfield Electric Cooperative	-	-	-	-
The City of Crystal Falls	\$357	2,651	2,651	100%
The City of Dowagiac	\$1,540	14,313	14,313	100%
The City of Gladstone Department of Power & Light	\$453	4,416	4,416	100%
The City of Harbor Springs Electric Department	\$539	5,395	5,395	100%
Hillsdale Board of Public Utilities	\$2,195	24,655	24,655	100%
L'Anse Electric Utility	\$261	2,002	2,002	100%
The City of Negaunee Electric Department	\$423	3,313	3,313	100%
The City of Norway Department of Power & Light	\$339	2,613	2,613	100%
Upper Peninsula Power Company	\$15,659	162,049	162,049	100%
We Energies	\$5,943	41,847	41,848	100%
Wisconsin Public Service	\$3,802	59,767	59,767	100%
Xcel Energy	\$2,444	25,213	25,213	100%
Total Electric	38,665	398,457	398,458	100%
		NATURAL GAS UTILITIES		
Michigan Gas Utilities	\$12,905	42,452	42,452	100%
Wisconsin Public Service	\$580	3,004	3,004	100%
Xcel Energy	\$716	982	982	100%
Total Natural Gas	14,201	46,439	46,438	100%

Pilot Program

The 2017 Efficiency United C&I Pilot Program offered both technology demonstration and direct-to-customer initiatives. The technology demonstration programs were a continuation of 2016 programs. These included:

 Heat recovery technology for packaged rooftop units. This technology regains heat from the A/C unit to preheat domestic hot water. Targeted outreach in the pilot focused on customers who have significant cooling and hot water demand. These customers included restaurants, laundromats, truck stops, health clubs and residential care facilities. This pilot effort ended mid-year due to significant challenges to get the market to adopt this technology. The primary reason for this was the physical space required by the additional hot water storage tank. Nationally, the manufacturer (RHEEM) also found significant resistance with market adoption. Initial data from this pilot is anticipated to be available in late 2018.



- Advanced defrost controls. This package of advanced controls is designed to control the defrost cycle(s) in walk-in coolers and freezers. Targeted outreach focused on customers with walk-in coolers and freezers, including but not limited to restaurants, convenience stores, food banks and schools. A total of 16 units for 9 participating customers were installed with defrost controls in 2017. Efficiency United plans to install five additional control units in 2018. These units were scheduled for December 2017 installation, but a combination of weather and trade ally issues prevented their installation. For the units installed in 2017, the metering and verification methodology has evolved to a very robust approach with continuous monitoring of 16 data points with both active control and baseline sites. This is a promising technology with a substantial untouched market potential and a program goal of a work-paper submission to the EWR Collaborative in 2019.
- Steam traps. The direct-to-customer initiative was designed to assist customers with process steam activities and provided a new approach for steam trap projects. Initially, this was offered to customers with small process steam loads (e.g., dry cleaners) but expanded to larger customers and some HVAC-oriented customers

to better understand the savings opportunities and the costs when failed open steam traps are repaired. This measure and initial customer segment were targeted after determining that this is an underserved market and that steam trap maintenance is poorly understood and undervalued. The pilot utilized trained staff to perform the surveys and failed open traps were evaluated primarily on a custom calculation basis. Staff then met with the customer to discuss the findings and savings opportunity and to schedule repairs. The pilot paid 100 percent of the repair cost of failed "open" steam traps. In 2017, nine Efficiency United customers participated in this pilot. In addition, this pilot was offered in the SEMCO Energy Gas Company service territory. This pilot will continue into the first half of 2018, and data will be available by 04 of 2018.

Special Funded Initiative: Focused Audits

In addition to the statutory pilot funds, carryover budgets were utilized to provide focused audits for some C&I customers. The purpose of these audits was to provide a deeper analytical dive for specific equipment and processes to identify savings opportunities for these customers. Energy advisors will be working with these customers in 2018 to implement these opportunities. Customers from Michigan Gas Utility (10), WPS Electric (2) and UPPCO (2) participated.

Dilot	Drogram	Overview

lot Program Overview					
Provider	# of Participants	Incentive Spent	2017 kWh/Therm Achieved	2017 Annual kWh/ Therm Goal	% of Savings Goal Achieved
		ELECTRIC U	TILITIES		
Alpena Power Company	1	\$1,999	21,924	75,914	29%
Baraga Electric Utility	1	\$468	3,907	7,789	50%
Bayfield Electric Cooperative	-	-	-	-	-
The City of Crystal Falls	1	\$299	2,216	4,418	50%
The City of Dowagiac	-	-	-	23,855	0%
The City of Gladstone Department of Power & Light	1	\$379	3,693	7,360	50%
The City of Harbor Springs Electric Department	1	\$898	8,992	8,992	100%
Hillsdale Board of Public Utilities	1	\$3,658	41,092	41,092	100%
L'Anse Electric Utility	1	\$218	1,674	3,337	50%
The City of Negaunee Electric Department	1	\$353	2,770	5,522	50%
The City of Norway Department of Power & Light	1	\$283	2,185	4,355	50%
Upper Peninsula Power Company	1	\$4,000	41,396	270,081	15%
We Energies	2	\$9,905	69,746	69,746	100%
Wisconsin Public Service	-	-	-	99,612	0%
Xcel Energy	-	-	-	42,022	0%
Total Electric	12	\$22,459	199,596	664,096	30%
		NATURAL GAS	UTILITIES		
Michigan Gas Utilities	8	\$11,605	38,176	70,754	54%
Wisconsin Public Service	1	\$824	4,269	5,007	85%
Xcel Energy	-	-	-	1,637	0%
Total Natural Gas	9	\$12,429	42,445	77,397	55%



Marketing

The 2017 marketing approach was a balance of maintaining market presence and refreshing the Efficiency United brand to be more closely aligned with our utility customers. A customer profile was completed through the CLEAResult Market Intelligence team, which identified specific characteristics of the Efficiency United customer. The customer profile served as the basis for a complete Efficiency United rebrand, including a new logo, writing style and outreach approach. In addition, a Michigan-based photographer was commissioned to complete a catalog of proprietary photos for use in all residential collateral materials. These photos more closely align with Michigan and better represent the customers Efficiency United serves.

In conjunction with the new look and feel of the collaboration with Efficiency United, the website was completely reconfigured, with the focus on user experience. The new website design allows customers to move directly to the Efficiency United Residential or C&I Program offerings upon entering the site. Programs are presented as more commonly understood terms, rather than by formal program names. (For example, we have moved from "Home Performance" to individual home clusters such as "Heating and Cooling" and "Water Heating.") This transition assists in removing some of the skepticism and confusion around the programs and makes them more digestible for customers.

Marketing focused on maintaining an increased presence in the retail arena while introducing new customer outreach methods. Throughout the year, to maximize efficiency, Efficiency United utilized existing materials, including its comprehensive residential

overview brochure. The 10-panel brochure offers Efficiency United residential customers the opportunity to identify rebates and savings opportunities for their entire home in a one-stop-shopping approach.

The Efficiency United website continued to be a primary focus for all marketing materials across all programs. In total, 31,694 users visited the Efficiency United website, representing a total of 175,177 page views. Of the total page views, more than 29 percent were customers visiting the Efficiency United page and 74 percent of those visitors were new. These statistics show once again that the program continues to reach new customers while providing a service that customers deem valuable enough to return to for additional opportunities.

Visually creating Efficiency United's collaborative status with Efficiency United required separate but similar marketing materials. When possible, Efficiency United-specific materials are used to promote the program offerings; in instances where utility service overlap is likely, Efficiency United materials are used and include the Efficiency United logo in the logo band.



Collateral Material



Wall-to-wall comfort and savings

Even in Michigan, most homes don't have enough insulation. Yours doesn't have to be like most homes. Take advantage of these rebates to help keep your home cool all summer, cozy all winter and energy efficient all year long.

Project	Rebate
Attic insulation	Up to \$300
Wall insulation	Up to \$300
Rim joist insulation	\$300
Floor insulation*	\$300

* Primary heating system must be electric.

Get started today.

Call 877.367.3191 or visit efficiencyunited.com.

o qualify you must be a Michigan residential customer of a participating Efficiency United energy provider







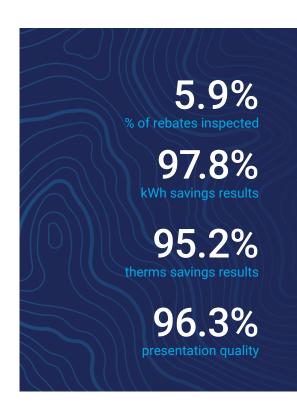
QA/QC

Measure Inspection Results-Residential Programs

Efficiency United continued its dedication to excellence through its quality check system. Through on-site verification and phone interviews with randomly selected participants, Efficiency United regularly investigated customer satisfaction, confirmed rebate eligibility and assessed reported energy savings integrity.

Results were shared with program teams to assess areas of excellence and identify opportunities for improvement. Participation in the quality control process was voluntary; however, Efficiency United achieved its 5 percent inspection target of approved projects annually across Efficiency United service territories.

Through the in-home verification process, Efficiency United identified over 95 percent accuracy in therm savings claimed and nearly 98 percent accuracy in kWh savings claimed.



What prompted you to participate in this rebate program?

Save Money	Reduce Energy Waste	Manage Energy Bill	Increase Home's Value
57.6%	40%	1.8%	.06%

How did you hear about this rebate program?

Contractor	Friend/Family	Community Action Agency	Internet Search	Mailer	Utility Bill Insert	Social Media
62.3%	12.6%	8.7%	5.8%	5.8%	2.9%	1.9%

How likely are you to recommend this program to your family and friends?

Completely Likely	Very Likely	Moderately Likely	Not Likely
86.9%	8.3%	.1%	3.7%

How likely are you to participate in another Efficiency United program?

Completely Likely	Very Likely	Moderately Likely	Slightly Likely
87.7%	7.6%	2.8%	1.9%

Appendix

Total Available Budgets: All Classes

Provider	Total Collection for Program Year 2017	MCA Administration Spending Cap (4.25%)	DNVGL Evaluation Spending Cap (8%)	Income Qualified Spending Requirement (10%)	Pilot Program Spending Cap (5%)	Education Program Spending Cap (3%)	Remaining Programs Spending Cap			
ELECTRIC UTILITIES										
Alpena	\$519,823	\$22,092	\$41,586	\$51,982	\$25,991	\$15,595	\$362,577			
Baraga	\$44,860	\$1,907	\$3,589	\$4,486	\$2,243	\$1,346	\$31,290			
Bayfield	\$914	\$39	\$73	\$91	\$46	\$27	\$637			
Crystal Falls	\$47,500	\$2,019	\$3,800	\$4,750	\$2,375	\$1,425	\$33,131			
Dowagiac	\$145,491	\$6,183	\$11,639	\$14,549	\$7,275	\$4,365	\$101,480			
Gladstone	\$70,480	\$2,995	\$5,638	\$7,048	\$3,524	\$2,114	\$49,160			
Harbor Springs	\$71,369	\$3,033	\$5,710	\$7,137	\$3,568	\$2,141	\$49,780			
Hillsdale	\$242,944	\$10,325	\$19,436	\$24,294	\$12,147	\$7,288	\$169,454			
L'Anse	\$32,080	\$1,363	\$2,566	\$3,208	\$1,604	\$962	\$22,376			
Negaunee	\$66,220	\$2,814	\$5,298	\$6,622	\$3,311	\$1,987	\$46,188			
Norway	\$70,360	\$2,990	\$5,629	\$7,036	\$3,518	\$2,111	\$49,076			
UPPCO	\$2,213,207	\$94,061	\$177,057	\$221,321	\$110,660	\$66,396	\$1,543,712			
We Energies	\$912,802	\$38,794	\$73,024	\$91,280	\$45,640	\$27,384	\$636,679			
WPS Corp - Electric	\$391,934	\$16,657	\$31,355	\$39,193	\$19,597	\$11,758	\$273,374			
XCEL Energy - Electric	\$297,011	\$12,623	\$23,761	\$29,701	\$14,851	\$8,910	\$207,165			
TOTAL ELECTRIC	\$5,126,996	\$217,897	\$410,160	\$512,700	\$256,350	\$153,810	\$3,576,079			
			NATURAL GA	S UTILITIES						
MGU	\$2,802,757	\$119,117	\$224,221	\$280,276	\$140,138	\$84,083	\$1,954,923			
WPS Corp - Gas	\$101,949	\$4,333	\$8,156	\$10,195	\$5,097	\$3,058	\$71,109			
Xcel Energy - Gas	\$120,680	\$5,129	\$9,654	\$12,068	\$6,034	\$3,620	\$84,174			
TOTAL GAS	\$3,025,386	\$128,579	\$242,031	\$302,539	\$151,269	\$90,762	\$2,110,206			

Appendix

Total Implementation Budget: By Class

Provider	Income Qualified Implementation Budget	Residential Implementation Budget	Commercial & Industrial Implementation Budget	Total Implementation Budget	Total Implementation Collected	Total Implementation Budget Remaining
		E	LECTRIC UTILITIE	S		
Alpena	\$20,793	\$77,502	\$88,321	\$186,617	\$186,617	-
Baraga	\$1,794	\$2,412	\$11,899	\$16,105	\$16,105	-
Bayfield	\$37	\$292	-	\$328	\$328	-
Crystal Falls	\$1,900	\$7,554	\$7,599	\$17,053	\$17,053	-
Dowagiac	\$5,820	\$13,655	\$32,756	\$52,231	\$52,231	-
Gladstone	\$2,819	\$12,849	\$9,634	\$25,302	\$25,302	-
Harbor Springs	\$2,855	\$11,309	\$11,458	\$25,622	\$25,622	-
Hillsdale	\$9,718	\$30,829	\$46,670	\$87,217	\$87,217	-
L'Anse	\$1,283	\$4,689	\$5,544	\$11,517	\$11,517	-
Negaunee	\$2,649	\$12,135	\$8,989	\$23,773	\$23,773	-
Norway	\$2,814	\$15,242	\$7,203	\$25,259	\$25,259	-
UPPCO	\$88,528	\$373,008	\$333,005	\$794,541	\$794,541	-
We Energies	\$36,512	\$164,800	\$126,384	\$327,696	\$327,696	-
WPS Corp - Electric	\$15,677	\$44,176	\$80,851	\$140,704	\$140,704	-
XCEL Energy - Electric	\$11,880	\$42,781	\$51,966	\$106,627	\$106,627	-
TOTAL ELECTRIC	\$205,080	\$813,233	\$822,279	\$1,840,591	\$1,840,591	-
		NAT	TURAL GAS UTILIT	TES		
MGU	\$112,110	\$619,624	\$274,456	\$1,006,190	\$1,006,190	-
WPS Corp - Gas	\$4,078	\$20,195	\$12,326	\$36,600	\$36,600	-
Kcel Energy - Gas	\$4,827	\$23,264	\$15,233	\$43,324	\$43,324	-
TOTAL GAS	\$121,015	\$663,083	\$302,015	\$1,086,113	\$1,086,113	-

Appendix

Total Energy Savings Achieved: All Classes

Provider	Total Participants	2017 Annual kWh/ Therm Goal	Self-Directed	Total Goal	Total Savings Achieved	% of Goal Achieved		
ELECTRIC UTILITIES								
Alpena	10,778	2,031,184	1,385,723	3,416,907	9,439,870	276%		
Baraga	47	186,296	-	186,296	327,960	176%		
Bayfield	5	1,596	-	1,596	3,347	210%		
Crystal Falls	549	163,820	-	163,820	1,198,707	732%		
Dowagiac	286	650,370	-	650,370	972,577	150%		
Gladstone	382	317,270	-	317,270	674,700	213%		
Harbor Springs	251	377,650	-	377,650	581,463	154%		
Hillsdale	371	1,192,393	-	1,192,393	4,176,937	350%		
L'Anse	301	117,710	-	117,710	229,198	195%		
Negaunee	801	225,433	-	225,433	771,804	342%		
Norway	843	270,366	-	270,366	553,940	205%		
UPPCO	14,760	8,014,777	-	8,014,777	17,355,486	217%		
We Energies	9,798	3,093,546	2,094,237	5,187,784	11,256,402	217%		
WPS Corp - Electric	4,730	2,675,944	-	2,675,944	4,559,499	170%		
XCEL Energy - Electric	3,771	1,395,517	-	1,395,517	2,845,508	204%		
TOTAL ELECTRIC	47,673	20,713,872	3,479,961	24,193,833	54,947,396	227%		
NATURAL GAS UTILITIES								
MGU	4,733	2,452,832	-	2,452,832	4,593,101	187%		
WPS Corp - Gas	291	134,761	-	134,761	136,271	101%		
Xcel Energy - Gas	222	69,752	-	69,752	98,645	141%		
TOTAL GAS	5,246	2,657,345	-	2,657,345	4,828,018	182%		

